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EXAMINER

SALIARD, SHANNON S

ART UNIT	PAPER NUMBER
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3628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/635,273	Applicant(s) HARTMANN ET AL.	
	Examiner Shannon S. Saliard	Art Unit 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-21, 23-32, 34-52, 65, 66, 68-73, 75-81, 83-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-21, 23-32, 34-52, 65, 66, 68-73, 75-81 and 83-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Applicant has amended claims 1, 3, 5, 6, 8, 10, 11, 15, 18, 20, 21, 23-25, 31, 32, 34, 35, 41-43, 45-52, 65, 66, 71, 73, 78, 80, 81, and 86-89, cancelled claims 4, 22, 33, 53-64, 67, 74, and 82, added new claims 90 and 91. Thus, claims 1-3, 5-21, 23-32, 34-52, 65, 66, 68-73, 75-81, and 83-91 remain pending and are presented for examination.

Response to Arguments

2. Applicant's arguments and amendments filed 03 January 2007, with respect to the rejections of claims 1, 5, 6, 8, 14, 20, 23, 24, 26, 31, 34, 36, 41, 45, 47, 50, 65, 71, 73, and 78-80 under 35 U.S.C. 112, Second Paragraph, have been fully considered and are persuasive. Thus, the rejections of claims 1, 5, 6, 8, 14, 20, 23, 24, 26, 31, 34, 36, 41, 45, 47, 50, 65, 71, 73, and 78-80 under 35 U.S.C. 112, Second Paragraph has been withdrawn.

3. Applicant's arguments filed 03 January 2007, with respect to the rejections of claims 1-3, 5-21, 23-32, 34-52, 65, 66, 68-73, 75-81, and 83-89 under 35 U.S.C. 101, have been fully considered and are persuasive. Thus, the rejections of claims 1-3, 5-21, 23-32, 34-52, 65, 66, 68-73, 75-81, and 83-89 under 35 U.S.C. 101 have been withdrawn.

4. Applicant's arguments filed 03 January 2007, with respect to the rejections of claims 65, 66, 68-73, 75-81 and 83-85 under 35 U.S.C. 101, have been fully considered

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and are not persuasive. Thus, the rejections of claims 65, 66, 68-73, 75-81 and 83-85 under 35 U.S.C. 101 have been upheld.

5. Applicant's arguments with respect to claims 1, 20, 31, 41, 47, and 50 under 35 U.S.C. 103 (a) have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed 03 January 2007, with respect to the rejections of claims 86 and 88 under 35 U.S.C. 103 (a), have been fully considered but they are not persuasive.

7. Applicant argues (with respect to claims 86 and 88) that Fay or Meggido fail to disclose or render obvious claim limitations relating to determining a hit ratio for a product source and increasing product availability information updates for the product source when the hit ratio is below a threshold. However, Examiner submits that Meggido et al discloses that a on a cache miss the system decides whether to replace the page (i.e. source) [0093]. Thus, as long as the page returns a cache hit there is no update to the cache for that page, but when there is a cache miss (i.e., the cache hit ratio falls below the threshold of one miss) the cache is updated.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claims 65, 66, 68-73, 75-81 and 83-85** are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. The claims, as currently recited,

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appear to be directed to nothing more than a series of steps including accessing, storing, receiving, and determining data such as availability information without any useful, concrete and tangible result and are therefore deemed to be non-statutory. While these steps may be concrete and/or tangible, there does not appear to be any tangible result.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 1-3, 8, 9, 14, 15, 20-21, 26, 31-32, 36, 41, 45-47, 50, 90, and 91** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fay et al [US 2003/0187851] in view of Baggett et al [WO 02/25557].

As per **claims 1, 20, and 31**, Fay et al discloses a method for providing product availability information to a user from at least one product source, where a product has one or more associated different start dates indicating when a user may initiate use of the product, said method comprising: accessing at least one product source and requesting product availability information concerning at least one product prior to receipt of a product availability request from a user concerning the product; storing the product availability information received from the product source in a storage device; receiving a product availability request from a user concerning a selected product;

accessing the product availability information stored in the storage device for the selected product; and determining the availability of the selected product based on at least the product availability information stored in the storage device [0018]. Fay et al does not disclose updating the product availability information stored in the storage device more often for start dates of the selected product that occur sooner in time than for start dates that occur later in time. However, Baggett et al discloses updating flight information more often based on nearness of departure [page 35, para. 7- page 36 para. 2; page 37, para 2 – page 38, para. 5]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Baggett et al so that the user receives accurate information.

As per **claim 2**, Fay et al further discloses wherein said accessing and storing steps access a plurality of product sources, requests product availability information concerning at least one product, and store the product availability information for the at least one product from each product source in the storage device [0017].

As per **claims 3, 21, and 32**, Fay et al further discloses wherein said updating step updates the product availability information stored in the storage device by accessing the product sources, requesting product availability information about the product, and storing the product availability information in the storage device [0027].

As per **claims 8 and 45**, Fay et al further discloses wherein the product can be used beginning on a particular start date and may be used for different lengths of use, wherein for each length of use for each start date said accessing and storing steps

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access product sources, requests availability information concerning the product for the particular start date of use and length of use, and stores the availability information in the storage device [0037].

As per **claims 9 and 46**, Fay et al further discloses wherein for each start date, said updating step updates the product availability information for each length of use associated with the start date [0044].

As per **claims 14, 26, 36**, Fay et al discloses wherein the product can be used beginning on a particular start date and may be used for different lengths of use from the start date [0037]. Fay et al fails to explicitly disclose wherein said storing step only stores product availability information for a maximum number of lengths of use for each start date. However, Fay et al discloses that product availability information is only stored for a maximum day range from the current date [0047]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include only storing product availability information for a maximum number of lengths of use for each start date to control the number of records stored in the database.

As per **claim 15**, Fay et al further discloses wherein said receiving, accessing, and determining steps comprise: receiving an availability request from a user concerning a selected product for a given start date and length of use; accessing the product availability information stored in the storage device for the selected product; and determining the availability of the selected product based on the selected start date and

length of use from the product availability information stored in the storage device [0037].

As per **claims 41, 47, and 50**, Fay et al discloses a method for providing product availability information to a user from at least one product source, where a product has one or more associated different start dates indicating when a user may initiate use of the product, said method comprising: accessing at least one product source and requesting product availability information concerning at least one product for different start dates prior to receipt of a product availability request from a user concerning the product; storing the product availability information received from the product source in a storage device; determining the availability of a product selected by a user based on at least the product availability information stored in the storage device [0018]. Fay et al does not disclose updating product availability information stored in the storage device more often for start dates of the selected product that occur sooner in time than for start dates occur later in time. However, Baggett et al discloses updating flight information more often based on nearness of departure [page 35, para. 7- page 36 para. 2; page 37, para 2 – page 38, para. 5]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Baggett et al so that the user receives accurate information.

As per **claim 90**, Fay et al discloses a method for providing product availability information to a user from at least one product source, where a product has one or more associated different start dates indicating when a user may initiate use of the

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product, said method comprising: accessing at least one product source and requesting product availability information concerning at least one product prior to receipt of a product availability request from a user concerning the product; storing the product availability information received from the product source in a storage device; receiving a product availability request from a user concerning a selected product; accessing the product availability information stored in the storage device for the selected product; and determining the availability of the selected product based on at least the product availability information stored in the storage device [0018]. Fay et al does not disclose updating the product availability information stored in the storage device according to seasonal information, wherein the seasonal information comprises a range of dates, wherein updating the product availability information stored in the storage device comprises updating more often for start dates within the date range defined by the seasonal information than for start dates not within the date range defined by the seasonal information. However, Baggett et al discloses updating flight information for holidays and special events more frequently [page 36, para 5]. Baggett et al further discloses a bucketing strategy, which includes date ranges for indicating updating frequency [pages 36-40]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include updating the product availability information stored in the storage device according to seasonal information, wherein the seasonal information comprises a range of dates, wherein updating the product availability information stored in the storage device comprises updating more often for start dates within the date range defined by the

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seasonal information than for start dates not within the date range defined by the seasonal information so that information that needs urgent updating is updated first , as suggested by Baggett et al [pg. 40, para. 4].

As per **claim 91**, Fay et al does not disclose wherein the seasonal information comprises the dates of a holiday season, wherein updating the product availability information stored in the storage device comprises updating more often for start dates within the holiday season than for start dates not within the holiday season. However, Baggett et al discloses updating flight information for holidays and special events more frequently [page 36, para 5]. Baggett et al further discloses a bucketing strategy, which includes date ranges for indicating updating frequency [pages 36-40]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include updating the product availability information stored in the storage device according to seasonal information, wherein the seasonal information comprises a range of dates, wherein updating the product availability information stored in the storage device comprises updating more often for start dates within the date range defined by the seasonal information than for start dates not within the date range defined by the seasonal information so that information that needs urgent updating is updated first , as suggested by Baggett et al [pg. 40, para. 4].

12. **Claims 5-7, 23, 24, 34, 42-44, 48, 49, 51, and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fay et al [US 2003/0187851] in view of Baggett et al

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[WO 02/25557], as applied to claims 1, 20, 41, 47, and 50 above, and further in view of Bonneau et al [U.S. Patent No. 6,657,955].

As per **claims 5, 23, 42, 48, and 51**, Fay et al discloses all the limitations of claim 1. Fay et al further discloses wherein use of a product may begin on one of a plurality of different start dates and may be used for different lengths of time [0047-0048]. Fay et al fails to disclose wherein a decaying exponential function is used to determine the start dates to update. However, Bonneau et al discloses a decaying exponential function is used to determine the pre-stored information to update in a storage device [col 3, lines 62-67]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Bonneau et al to avoid providing stale information from the storage device to the user. Bonneau et al also provides the motivation that updating the records in the storage device prevents the storage device from reaching its full occupancy level.

As per **claims 6, 7, 24, 34, 43, 44, 49, and 52**, Fay et al discloses wherein use of a product may begin on one of a plurality of different start dates and may be used for different lengths of time wherein said updating step determines which start dates of use to update the availability information for in the storage device [0047-0048]. Fay et al fails to disclose wherein determining the start dates to update include using the function: $\text{Start Date} = N^{(\log \text{ day} / \log \text{ length})}$ where Start Date=date to be queried N=integer number (0, 1, 2, 3, . . . Day) Day=maximum number of days out to be queried Length=maximum number of days that can be returned in a query list and wherein said function generates

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a list of numbers, wherein said method further comprises adding each number in the list to said current date to determine the product availability for which start dates should be updated by said updating step in the storage device. However, Bonneau et al discloses that logarithmic functions can be used to determine the information that needs to be updated in a storage device [col 3, lines 62-67; col 12, lines 16-22]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Bonneau et al to avoid providing stale information from the storage device to the user. Bonneau et al also provides the motivation that updating the records in the storage device prevents the storage device from reaching its full occupancy level.

13. **Claims 10-13, 25, and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fay et al [US 2003/0187851] in view of Baggett et al [WO 02/25557], as applied to claims 1, 20, and 31 above, and in further view of in view of McKeeth [US 2003/0105744].

As per **claims 10, 25, and 35**, Fay et al discloses all the limitations of claims 1 and 3. Fay et al further discloses wherein the storage device comprises product availability information from a plurality of product sources [0016]. Fay et al fails to disclose wherein said method further comprises providing a score for each product source based at least on a popularity of the product source, and said updating step comprises updating the product availability information stored in the storage device for each product source based on the score associated with each product source.

However, McKeeth discloses a method for updating and scoring data based on popularity [0022; 0027]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by McKeeth. McKeeth provides the motivation that the method would overcome the problem of stale information in a database by improving the freshness of the contents in the database.

As per **claim 11**, Fay et al fails to disclose wherein said updating step updates product availability information for product sources having higher scores more than product sources having lower scores. However, McKeeth discloses that information associated with a source having a higher popularity rating is updated more often than information having a lower popularity rating [0042]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by McKeeth. McKeeth provides the motivation that it is easier to manage vast amounts of data stored in the database by using a method to decide which resources should be updated first and when.

As per **claim 12**, Fay et al fails to disclose wherein said updating step performs a selected number of updates of product source information for a given update session, said updating step assigns more updates to product sources having higher scores than to product sources having lower scores. However, McKeeth discloses that a predetermined number of updates are performed in an update session and that data having higher scores are updated more frequently (0042; lines 30-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to

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modify the invention of Fay et al to include the method disclosed by McKeeth. McKeeth provides the motivation that it is easier to manage vast amounts of data stored in the database by using a method to decide which resources should be updated first and when.

As per **claim 13**, Fay et al fails to disclose wherein a minimum number of updates are performed on each product source independent of the product source's associated score. However, McKeeth discloses that a minimum number of updates is performed on the information stored in the storage device regardless of a popularity score [0044]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by McKeeth to provide information that has a better probability of being accurate when the user requests the information.

14. **Claims 86-89** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fay et al [US 2003/0187851] in view of Megiddo et al [US 2004/0098541].

As per **claims 86 and 88**, Fay et al discloses a method for providing product availability information to a user from at least two product sources, said method comprising: accessing the at least two product sources and requesting product availability information concerning at least one product prior to receipt of a product availability request from a user concerning the product; storing the product availability information received from the product sources in a storage device; determining the availability of a requested product by a user based on at least the availability information

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prestored in the storage device; providing the user with availability information concerning the product from each product source. Fay et al fails to disclose accumulating the number of times that a product source's product relates to an availability request and the number of times that the product source had availability for the requested product; dividing the number of times that the product source had availability for the requested product by the number of times that a product source's product related to an availability request to thereby determine a hit ratio; comparing the hit ratio to a hit ratio threshold; and updating the availability information stored in the storage device for product sources, wherein said updating step increases the number of times availability information is updated for a product source having a hit ratio that is less than or equal to the hit ratio threshold. However, Megiddo et al discloses that a hit ratio is determined and the information in the storage device is updated based on a hit threshold [0042-0046; 0059; 0093]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Megiddo et al. Megiddo et al provides the motivation that using a information replacement method for updating files helps to maximize the hit ratio while minimizing the memory overhead [0005].

As per **claims 87 and 89**, Fay et al fails to disclose wherein said updating step decreases the number of times availability information is updated for a product source having a hit ratio that is at least as great as the hit ratio threshold. However, Megiddo et al discloses that the frequency of updates is lower for information with a greater hit ratio [0093-0097]. Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the invention of Fay et al to include the method disclosed by Megiddo et al. Megiddo et al provides the motivation that using a information replacement method for updating files helps to maximize the hit ratio while minimizing the memory overhead [0005].

Allowable Subject Matter

15. **Claims 16-19, 27-30, and 37-40** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
16. **Claims 65, 66, 68-73, 75-81 and 83-85** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 101, set forth in this Office action.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shannon S. Saliard whose telephone number is 571-272-5587. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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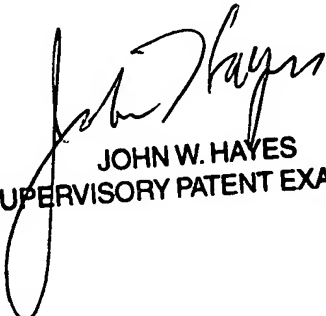
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JOHN W. HAYES
SUPERVISORY PATENT EXAMINER

Shannon S Saliard
Examiner
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SSS